



Commonwealth of Massachusetts  
Executive Office of Energy & Environmental Affairs

## Department of Environmental Protection

Southeast Regional Office • 20 Riverside Drive, Lakeville MA 02347 • 508-946-2700

DEVAL L. PATRICK  
Governor

MAEVE VALLELY BARTLETT  
Secretary

DAVID W. CASH  
Commissioner

Date: December 18, 2014

Mr. Mark Pearson  
Kickemuit Industries LLC, d/b/a Pearson Pilings  
846 Airport Road  
Fall River, MA 02720

**RE: SOMERSET**  
Transmittal No.: X263480  
Application No.: SE-14-031  
Class: *Submin*  
FMF No.: 562499  
**AIR QUALITY PLAN APPROVAL**

Dear Mr. Pearson:

The Massachusetts Department of Environmental Protection (“MassDEP”), Bureau of Waste Prevention, has reviewed your Limited Plan Application (“Application”) listed above. This Application concerns the proposed construction and operation of a fiberglass product manufacturing facility located at 185 Riverside Avenue in Somerset, Massachusetts (“Facility”).

This Application was submitted in accordance with 310 CMR 7.02 Plan Approval and Emission Limitations as contained in 310 CMR 7.00 “Air Pollution Control,” regulations adopted by MassDEP pursuant to the authority granted by Massachusetts General Laws, Chapter 111, Section 142 A-J, Chapter 21C, Section 4 and 6, and Chapter 21E, Section 6. MassDEP’s review of your Application has been limited to air pollution control regulation compliance and does not relieve you of the obligation to comply with any other regulatory requirements.

MassDEP has determined that the Application is administratively and technically complete and that the Application is in conformance with the Air Pollution Control regulations and current air pollution control engineering practice, and hereby grants this **Plan Approval** for said Application, as submitted, subject to the conditions listed below.

Please review the entire Plan Approval, as it stipulates the conditions with which the Facility owner/operator (“Permittee”) must comply in order for the Facility to be operated in compliance with this Plan Approval.

## 1. **DESCRIPTION OF FACILITY AND APPLICATION**

Pearson Pilings is a fiberglass product manufacturing operation that was formerly part of the SwimEx facility located at 846 Airport Road in Fall River, MA and operating in accordance with Non-Major Comprehensive Plan Application No. 4P05008. Pearson Pilings is moving its operation to a new location at 185 Riverside Avenue in Somerset, MA. Pearson Pilings manufactures cylindrical reinforced fiberglass composite marine pilings.

Emissions from the fiberglass product manufacturing operations include Volatile Organic Compounds (VOC), Hazardous Air Pollutants (HAP) as listed in the 1990 Clean Air Act (CAA) Amendments, Section 112(b), and Non-Criteria Pollutants (Acetone).

Pearson Pilings uses the SCRIMP™ (Seemann Composites Resin Infusion Molding Process) method for molding of its marine pilings. The facility will operate two production lines, identified as the rotary line and the flat line, each capable of producing pilings with diameters ranging from 6 inches to 24 inches. The rotary line can produce pilings up to 40 feet in length and the flat line can produce pilings up to 55 feet in length. Exhaust from the SCRIMP™ vacuum pump is vented through a carbon adsorption unit and exhausted to the inside air. There is no open molding or gelcoat application conducted as part of the Pearson Pilings operation. Emission factors for the SCRIMP™ method are based on test results as presented in the application.

Fuel utilization equipment located at the facility is currently limited to two small natural gas-fired space heaters (each has a design heat input rate of less than 0.5 MMBtu/hr). The space heaters have been proposed as exempt from this plan approval in accordance with 310 CMR 7.02(2)(b)15. The Pearson Pilings facility is an area source of HAP and the fiberglass product manufacturing operation is not currently subject to the regulations at 40 CFR Part 63. Best Available Control Technology (BACT) is defined in Table 2.

## 2. **EMISSION UNIT (EU) IDENTIFICATION**

Each Emission Unit (EU) identified in Table 1 is subject to and regulated by this Plan Approval:

<b>Table 1</b>			
<b>EU#</b>	<b>Description</b>	<b>Design Capacity</b>	<b>Pollution Control Device (PCD)</b>
EU1	Closed Resin Molding Process: Two production lines identified as the rotary line and the flat line	Rotary line: 36 pilings per day Flat line: 18 pilings per day	Carbon Filter
EU2	Cleaning operations	N/A	None
EU3	Adhesive, Surface Preparation and Painting operations	N/A	HVLP spray guns for adhesive application

Table 1 Key:

EU# = Emission Unit Number  
HVLV = High Volume Low Pressure  
N/A = not applicable  
PCD = Pollution Control Device

### 3. APPLICABLE REQUIREMENTS

#### A. OPERATIONAL, PRODUCTION and EMISSION LIMITS

The Permittee is subject to, and shall not exceed the Operational, Production, and Emission Limits as contained in Table 2 below:

Table 2			
EU#	Operational / Production Limit	Air Contaminant	Emission Limit
EU1	1. The permittee shall at all times utilize the SCRIMP™ vacuum-assisted resin transfer molding (VARTM) process and associated Carbon Filter system during Closed Resin Molding Process operations.	VOC and HAP	N/A
	2. The Permittee shall operate the carbon filter unit in accordance with manufacturer's specifications to ensure the system maintains the following control efficiencies. Capture efficiency: 100% Control efficiency ≥: 90% by weight Overall efficiency: ≥: 90% by weight		
	3. Styrene, as contained in resin, shall not exceed 33 percent, by weight.		
	4. Resin usage shall not exceed 375,000 lbs per month.		0.1 TPM (Note 1)
	5. Resin usage shall not exceed 2,250,000 lbs per consecutive twelve month period.		0.5 TPY (Note 1)
EU2	6. Acetone as used in facility cleaning operations shall not exceed 0.8 tons per month.	Acetone	0.8 TPM
	7. Acetone as used in facility cleaning operations shall not exceed 4.8 tons per consecutive twelve month period.		4.8 TPY
EU3	8. VOC, as contained in adhesive used for bonding of shade cloth to fiberglass, shall comply with requirements of 310 CMR 7.18(30)(c): Table 2	VOC	200 g/L, as applied

<b>Table 2</b>			
<b>EU#</b>	<b>Operational / Production Limit</b>	<b>Air Contaminant</b>	<b>Emission Limit</b>
EU3	9. VOC usage, as contained in adhesives, surface preparation and coatings, shall not exceed 0.1 tons per month.	VOC	0.1 TPM
	10. VOC usage, as contained in adhesives, surface preparation and coatings, shall not exceed 0.3 tons per consecutive twelve month period.		0.3 TPY
	11. HAP usage, as contained in adhesives, surface preparation and coatings, shall not exceed 0.1 tons per month.	HAP	0.1 TPM
	12. HAP usage, as contained in adhesives, surface preparation and coatings, shall not exceed 0.3 tons per consecutive twelve month period.		0.3 TPY
	13. Acetone as used in facility adhesive, surface preparation and painting activities shall not exceed 0.5 tons per month.	Acetone	0.5 TPM
	14. Acetone as used in facility adhesive, surface preparation and painting activities shall not exceed 3.0 tons per consecutive twelve month period.		3.0 TPY

**Table 2 Key:**

EU# = Emission Unit Number

Lbs = pounds

VOC = Volatile Organic Compounds

HAP = single and/or total combined Hazardous Air Pollutant(s)

SCRIMP™ = Seemann Composites Resin Infusion Molding Process

TPM = tons per month

TPY = tons per consecutive 12-month period

**Table 2 Notes:**

Note 1: VOC and HAP Emissions for EU 1 are based on a Styrene emission factor of 0.04% of resin usage. This emission factor is based on results of testing conducted by TPI Industries and takes into account the 90% overall control efficiency of the carbon adsorption unit.

**B. COMPLIANCE DEMONSTRATION**

The Permittee is subject to, and shall comply with, the monitoring, testing, record keeping, and reporting requirements as contained in Tables 3, 4, and 5 below:

<b>Table 3</b>	
<b>EU#</b>	<b>Monitoring and Testing Requirements</b>
EU1	1. The Permittee shall monitor the pressure drop across the carbon filter system at least once per week.
	2. The Permittee shall weigh the carbon filter system at least once every three months to document weight gain.
	3. The Permittee shall monitor pounds of resin as used in the closed molding process each month.
EU2	4. The Permittee shall monitor pounds of Acetone as used in cleaning operations each month.
EU3	5. The Permittee shall monitor pounds of VOC as contained in adhesives, surface preparation and coatings used each month.
	6. The Permittee shall monitor pounds of HAP as contained in adhesives, surface preparation and coatings used each month.
	7. The Permittee shall monitor pounds of Acetone as contained in adhesives, surface preparation and coatings used each month.
Facility-wide	8. The Permittee shall monitor all operations to ensure sufficient information is available to comply with 310 CMR 7.12 Source Registration.
	9. If and when MassDEP requires it, the Permittee shall conduct emission testing in accordance with USEPA Reference Test Methods and regulation 310 CMR 7.13

**Table 3 Key:**

CMR = Code of Massachusetts Regulations

EU# = Emission Unit Number

USEPA = United States Environmental Protection Agency

HAP = single and/or total combined Hazardous Air Pollutant(s)

MassDEP = Massachusetts Department of Environmental Protection

VOC = Volatile Organic Compound(s)

<b>Table 4</b>	
<b>EU#</b>	<b>Record Keeping Requirements</b>
EU1	1. The Permittee shall maintain records of the pressure drop across the carbon filter system as monitored each week to confirm effective operation.
	2. The Permittee shall maintain records of the weight of the carbon filter system as monitored at least every three months to confirm efficient operation.
	3. The Permittee shall maintain records of materials used to include pounds of resin and styrene content (by weight) of resin used.

<b>Table 4</b>	
<b>EU#</b>	<b>Record Keeping Requirements</b>
EU2	4. The Permittee shall maintain records of Acetone used each month in facility cleaning operations.
EU3	5. The Permittee shall maintain records of the final, as applied, VOC content (in grams per liter of material) of any adhesive, sealant, adhesive primer, or sealant primer.
	6. The Permittee shall maintain records of VOC used each month in facility Adhesive, Surface Preparation and Painting operations.
	7. The Permittee shall maintain records of HAP used each month in facility Adhesive, Surface Preparation and Painting operations.
	8. The Permittee shall maintain records of Acetone used each month in facility Adhesive, Surface Preparation and Painting operations.
Facility-wide	9. The Permittee shall maintain adequate records on-site to demonstrate compliance with all operational, production, and emission limits contained in Table 2 above. Records shall also include the actual emissions of air contaminant(s) emitted for each calendar month and for each consecutive twelve month period (current month plus prior eleven months). These records shall be compiled no later than the 15 <sup>th</sup> day following each month. An electronic version of the MassDEP approved record keeping form, in Microsoft Excel format, can be downloaded at <a href="http://www.mass.gov/dep/air/approvals/aqforms.htm#report">http://www.mass.gov/dep/air/approvals/aqforms.htm#report</a> .
	10. The Permittee shall maintain a record (e.g. Manufacturer's formulation data, Material Safety Data Sheet, etc.) of each process formulation used, to include formulation density, VOC content by weight, individual HAP content by weight, Total HAP content by weight and other information necessary to demonstrate compliance with Table 2.
	11. The Permittee shall maintain records of monitoring and testing as required by Table 3.
	12. The Permittee shall maintain a copy of this Plan Approval, underlying Application and the most up-to-date SOMP for the EU(s) and PCD(s) approved herein on-site.
	13. The Permittee shall maintain a record of routine maintenance activities performed on the approved EU(s), PCD(s) and monitoring equipment. The records shall include, at a minimum, the type or a description of the maintenance performed and the date and time the work was completed.
	14. The Permittee shall maintain a record of all malfunctions affecting air contaminant emission rates on the approved EU(s), PCD(s) and monitoring equipment. At a minimum, the records shall include: date and time the malfunction occurred; description of the malfunction; corrective actions taken; the date and time corrective actions were initiated and completed; and the date and time emission rates and monitoring equipment returned to compliant operation.
	15. The Permittee shall maintain records to ensure sufficient information is available to comply with 310 CMR 7.12 Source Registration.
	16. The Permittee shall maintain records required by this Plan Approval on-site for a minimum of five (5) years.

Table 4	
EU#	Record Keeping Requirements
Facility-wide	17. The Permittee shall make records required by this Plan Approval available to MassDEP and USEPA personnel upon request.

**Table 4 Key:**

EU# = Emission Unit Number  
HAP = single and/or total combined Hazardous Air Pollutant(s)  
MassDEP = Massachusetts Department of Environmental Protection  
PCD = Pollution Control Device  
SOMP = Standard Operating and Maintenance Procedure  
USEPA = United States Environmental Protection Agency  
VOC = Volatile Organic Compound(s)

Table 5	
EU#	Reporting Requirements
Facility-wide	1. The Permittee shall submit to MassDEP all information required by this Plan Approval over the signature of a "Responsible Official" as defined in 310 CMR 7.00 and shall include the Certification statement as provided in 310 CMR 7.01(2)(c).
	2. The Permittee shall notify the Southeast Regional Office of MassDEP, BWP C&E Chief by telephone (508) 946-2878, or fax (508) 947-6557, as soon as possible, but no later than three (3) business days after discovery of an exceedance(s) of Table 2 requirements. A written report shall be submitted to BWP C&E Chief at MassDEP within ten (10) business days thereafter and shall include: identification of exceedance(s), duration of exceedance(s), reason for the exceedance(s), corrective actions taken, and action plan to prevent future exceedance(s).
	3. The Permittee shall report to MassDEP as required, in accordance with 310 CMR 7.12, all information as required by the Source Registration/Emission Statement Form. The Permittee shall note therein any minor changes (under 310 CMR 7.02(2)(e), 7.03, 7.26, etc.), which did not require Plan Approval.
	4. The Permittee shall provide a copy to MassDEP of any record required to be maintained by this Plan Approval within 30-days from MassDEP's request.
	5. The Permittee shall submit to MassDEP for approval a stack emission pretest protocol, at least 30 days prior to emission testing, for emission testing as defined in Table 3 Monitoring and Testing Requirements.
	6. The Permittee shall submit to MassDEP a final stack emission test results report, within 45 days after emission testing, for emission testing as defined in Table 3 Monitoring and Testing Requirements.

**Table 5 Key:**

BWP = Bureau of Waste Prevention  
C&E = Compliance and Enforcement  
CMR = Code of Massachusetts Regulations  
EU# = Emission Unit Number  
MassDEP = Massachusetts Department of Environmental Protection

#### 4. **SPECIAL TERMS AND CONDITIONS**

The Permittee is subject to, and shall comply with, the following special terms and conditions:

- A. The Permittee shall comply with the Special Terms and Conditions as contained in Table 6 below:

<b>Table 6</b>	
<b>EU#</b>	<b>Special Terms and Conditions</b>
EU3	1. The Permittee shall ensure that all adhesive spray applications shall use a High Volume Low Pressure (HVLP) spray gun.
Facility-wide	2. The Permittee may reconcile the VOC, HAP and/or Acetone contained in any hazardous waste shipped during a month when determining monthly emissions. The facility shall maintain hazardous waste disposal records and purchase records for VOC, HAP and Acetone containing materials for this purpose. Such records shall verify the VOC, HAP and Acetone quantity present in the waste being shipped if reconciling monthly emissions.
	3. The Permittee shall conduct all handling and transferring operations involving VOC, HAP and/or Acetone containing solvents in a way that minimizes spills and releases of VOC, HAP and/or Acetone.
	4. The Permittee shall ensure the containers of VOC, HAP and/or Acetone containing solvents are in good condition and do not leak, and shall remain closed, except to add or remove material from them.

**Table 6 Key:**

EU# = Emission Unit Number

HAP = single and/or total combined Hazardous Air Pollutant(s)

VOC = Volatile Organic Compound(s)

- B. The Permittee shall install and use an exhaust stack, as required in Table 7, on each of the Emission Units that is consistent with good air pollution control engineering practice and that discharges so as to not cause or contribute to a condition of air pollution. Each exhaust stack shall be configured to discharge the gases vertically and shall not be equipped with any part or device that restricts the vertical exhaust flow of the emitted gases, including but not limited to rain protection devices known as “shanty caps” and “egg beaters.” The Permittee shall install and utilize exhaust stacks with the following parameters, as contained in Table 7 below, for the Emission Units that are regulated by this Plan Approval:

<b>Table 7</b>				
<b>EU#</b>	<b>Stack Height Above Ground (feet)</b>	<b>Stack Inside Exit Dimensions (N/A)</b>	<b>Stack Gas Exit Velocity Range (feet per second)</b>	<b>Stack Gas Exit Temperature Range (°F)</b>
EU1	N/A	N/A	General ventilation	N/A
EU2	N/A	N/A	General ventilation	N/A



<b>Table 7</b>				
<b>EU#</b>	<b>Stack Height Above Ground (feet)</b>	<b>Stack Inside Exit Dimensions (N/A)</b>	<b>Stack Gas Exit Velocity Range (feet per second)</b>	<b>Stack Gas Exit Temperature Range (°F)</b>
EU3	N/A	N/A	General ventilation	N/A

**Table 7 Key:**  
EU# = Emission Unit Number  
°F = Degree Fahrenheit  
N/A = Not applicable

## **5. GENERAL CONDITIONS**

The Permittee is subject to, and shall comply with, the following general conditions:

- A. Pursuant to 310 CMR 7.01, 7.02, 7.09 and 7.10, should any nuisance condition(s), including but not limited to smoke, dust, odor or noise, occur as the result of the operation of the Facility, then the Permittee shall immediately take appropriate steps including shutdown, if necessary, to abate said nuisance condition(s).
- B. If asbestos remediation/removal will occur as a result of the approved construction, reconstruction, or alteration of this Facility, the Permittee shall ensure that all removal/remediation of asbestos shall be done in accordance with 310 CMR 7.15 in its entirety and 310 CMR 4.00.
- C. If construction or demolition of an industrial, commercial or institutional building will occur as a result of the approved construction, reconstruction, or alteration of this Facility, the Permittee shall ensure that said construction or demolition shall be done in accordance with 310 CMR 7.09(2) and 310 CMR 4.00.
- D. Pursuant to 310 CMR 7.01(2)(b) and 7.02(7)(b), the Permittee shall allow MassDEP and / or USEPA personnel access to the Facility, buildings, and all pertinent records for the purpose of making inspections and surveys, collecting samples, obtaining data, and reviewing records.
- E. This Plan Approval does not negate the responsibility of the Permittee to comply with any other applicable Federal, State, or local regulations now or in the future.
- F. Should there be any differences between the Application and this Plan Approval, the Plan Approval shall govern.
- G. Pursuant to 310 CMR 7.02(3)(k), MassDEP may revoke this Plan Approval if the construction work is not commenced within two years from the date of issuance of this Plan Approval, or if the construction work is suspended for one year or more.

- H. This Plan Approval may be suspended, modified, or revoked by MassDEP if MassDEP determines that any condition or part of this Plan Approval is being violated.
- I. This Plan Approval may be modified or amended when in the opinion of MassDEP such is necessary or appropriate to clarify the Plan Approval conditions or after consideration of a written request by the Permittee to amend the Plan Approval conditions.
- J. The Permittee shall conduct emission testing, if requested by MassDEP, in accordance with USEPA Reference Test Methods and regulation 310 CMR 7.13. If required, a pretest protocol report shall be submitted to MassDEP at least 30 days prior to emission testing and the final test results report shall be submitted within 45 days after emission testing.
- K. Pursuant to 310 CMR 7.01(3) and 7.02(3)(f), the Permittee shall comply with all conditions contained in this Plan Approval. Should there be any differences between provisions contained in the General Conditions and provisions contained elsewhere in the Plan Approval, the latter shall govern.

## **6. MASSACHUSETTS ENVIRONMENTAL POLICY ACT**

MassDEP has determined that the filing of an Environmental Notification Form (ENF) with the Secretary of Energy & Environmental Affairs, for air quality control purposes, was not required prior to this action by MassDEP. Notwithstanding this determination, the Massachusetts Environmental Policy Act (MEPA) and 301 CMR 11.00, Section 11.04, provide certain "Fail-Safe Provisions," which allow the Secretary to require the filing of an ENF and/or an Environmental Impact Report (EIR) at a later time.

## **7. APPEAL PROCESS**

This Plan Approval is an action of MassDEP. If you are aggrieved by this action, you may request an adjudicatory hearing. A request for a hearing must be made in writing and postmarked within twenty-one (21) days of the date of issuance of this Plan Approval.

Under 310 CMR 1.01(6)(b), the request must state clearly and concisely the facts, which are the grounds for the request, and the relief sought. Additionally, the request must state why the Plan Approval is not consistent with applicable laws and regulations.

The hearing request along with a valid check payable to the Commonwealth of Massachusetts in the amount of one hundred dollars (\$100.00) must be mailed to:

Commonwealth of Massachusetts  
Department of Environmental Protection  
P.O. Box 4062  
Boston, MA 02211

This request will be dismissed if the filing fee is not paid, unless the appellant is exempt or granted a waiver as described below. The filing fee is not required if the appellant is a city or town (or municipal agency), county, or district of the Commonwealth of Massachusetts, or a municipal housing authority.

MassDEP may waive the adjudicatory hearing-filing fee for a person who shows that paying the fee will create an undue financial hardship. A person seeking a waiver must file, together with the hearing request as provided above, an affidavit setting forth the facts believed to support the claim of undue financial hardship.

Enclosed is a stamped approved copy of the application submittal.

Should you have any questions concerning this Plan Approval, please contact Peter Russell by telephone at 508-946-2821, or in writing at the letterhead address.

This final document copy is being provided to you electronically by the  
Department of Environmental Protection. A signed copy of this document  
is on file at the DEP office listed on the letterhead.

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Thomas Cushing  
Permit Chief  
Bureau of Waste Prevention

Enclosure

ecc: Somerset Board of Health  
Somerset Fire Department  
Eric Pearson, P.E., ESS Group, Inc.  
MassDEP/Boston - Yi Tian  
MassDEP/SERO - Maria Pinaud, Laura Black, Peter Russell